UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,241	03/08/2005	Alexander Boldin	BOLDIN/102/PC/US	2845

2543 7590 12/23/2009

ALIX YALE & RISTAS LLP
750 MAIN STREET
SUITE 1400
HARTFORD, CT 06103

EXAMINER	
JOSEPH, DENNIS P	

ART UNIT	PAPER NUMBER
2629	

MAIL DATE	DELIVERY MODE
12/23/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/527,241	BOLDIN, ALEXANDER	
	Examiner	Art Unit	
	DENNIS P. JOSEPH	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11/27/2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25 and 27-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25 and 27-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *3/8/2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is responsive to amendments filed in application No. 10/527,241 on November 27, 2009. Claims 1-25 and 27-30 are pending and have been examined.

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 27, 2009 has been entered.

Allowable Subject Matter

3. **Claim 25** objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections – 35 USC § 112

4. **Claims 1, 2 and 29** rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 recites therein "a force applied **generally parallel** to said working surface by said index fingertip when stretching or bending said index finger against said moulded contact surface."

Respectfully, there is no support for this in the specification, at least not with this wording. Looking at Applicant's Figure 3, it would be reasonable to one of skill that the finger moving along arrow 6 could also move the mouse in a forward direction, without actuating the button. As discussed before, the mouse could be moved forward without having enough force to actually depress the button. Furthermore, the specification does not even the term "**generally** parallel." This issue will be covered in the second paragraph rejection. Similar issues exist in Claim 29. Appropriate correction is required, thank you.

Claim 2 recites therein "said form of said rear part of said casing enabling a user to shift said mouse from a neutral position of said user's index and middle fingers by bending said user's index and middle fingers further into a **pocket formed by the user's hand**, so that said mouse does not interfere with said user's palm plane and said user's lower palm resting on said working surface."

Respectfully, this is not described in the specification and examiner is a little confused as to what this pocket means. Is the opening in which the fingers slip into? Is that what it means when it is claimed that the pocket is formed "by the user's hand"? Better definition of this term is needed as

the specification does not mention it and the language makes it a little difficult as to which part of the drawings is referencing it. Thank you.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. **Claims 1, 2 and 29** rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites therein "a force applied **generally** parallel to said working surface by said index fingertip when stretching or bending said index finger against said moulded contact surface."

Respectfully, the term "generally" has not been defined in the claims and the specification provides no definition either. Therefore, it is a vague and indefinite term. Reasoning which is commonly applied to the term "substantially" follows the same principle here. Generally parallel can be defined as what? Five degrees with respect to the working surface, ten degrees? Not only is the term broad, it is indefinite as well. Similar issues exist in Claim 29. Appropriate correction is required, thank you.

For purposes of examination, it will be interpreted as being moved in an angle relative to the surface such that movement of the made can be made in a direction, pending correction.

Claim 2 recites "when stretching said middle finger **forward downward**," the new claim amendments. Respectfully, perhaps this should recite something along the lines of stretching said middle finger in a forward and downward angle,"? Some kind of correction is appreciated, thank you. Similar issues exist in Claim 29.

Claim 2 recites therein "said form of said rear part of said casing enabling a user to shift said mouse from a neutral position of said user's index and middle fingers by bending said user's index and middle fingers further into a **pocket formed by the user's hand**, so that said mouse does not interfere with said user's palm plane and said user's lower palm resting on said working surface."

Respectfully, this is not described in the specification and examiner is a little confused as to what this pocket means. Is the opening in which the fingers slip into? Is that what it means when it is claimed that the pocket is formed "by the user's hand"? Better definition of this term is needed as the specification does not mention it and the language makes it a little difficult as to which part of the drawings is referencing it. Thank you.

For purposes of examination, the pocket will be interpreted as the area of the mouse the fingers slip into, pending correction.

Claim Rejections – 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. **Claims 1-13, 24 and 27-30** rejected under 35 U.S.C. 103(a) as being unpatentable over Adler (6,256,015 B1)

Adler teaches in Claim 1:

A mouse for a computer system, said mouse capable of conveying signals to the computer indicative of movement of said mouse across a working surface and being actuatable by a user to generate a signal to a computer **(Figure 7 shows the mouse, Column 3, Lines 18-29 describe how the mouse is used to send signals to position the cursor)**, said mouse comprising:

a casing having a bottom part resting on the working surface and an upper part **(Figure 7 shows the mouse with a casing with lower and upper parts)**, said casing longitudinally

extending from a front end to a rear end and having transversely spaced sides which are spaced so that said casing is positioned between distal phalanxes of a user's ring and little fingers **(Figure 7 shows the mouse from a front end to a rear end and Figure 6 shows the transversely spaced sides. Note the casing similarities between Figure 6 and Applicant's Figure 2)**, and a distal phalanx of a user's thumb when a user's lower palm, user's ring and little fingertips, and a side of the distal phalanx of the user's thumb are resting on the working surface without gripping said mouse in the naturally relaxed curled fingers and hand position **(The user may place their fingers in a variety of positions. A standard one is with some of the fingers resting on the surface to provide stability to the mouse)**;

a primary button disposed at an upper front portion of said casing so as to be actuated by a user's index finger **(It is well known that the primary button (left click) is actuated by the user's index finger)**, said primary button having an upper surface, which is angled to the front end of said casing **(Figures 1 and 7 show the angled structure to the front end of the mouse. Column 1, Lines 63-67 disclose the apertures 44/144 are positioned over corresponding buttons which can be clicked. The primary can be for the left click part, like or 46L)**; and

a primary fingertip receptacle at least partially extending upwardly from said angled upper surface of said primary button and forming a mould around a user's index fingertip when placed on said angled upper surface of said primary button slightly bent **(Figures 1 and 6 show the apertures which the finger can be placed into to depress the primary button, in the case, for the left click part. Figure 1 shows the groove for forming a mould around the fingertip a little better, such as the longitudinal depressions 46L and 46R),**

said primary button being actuated by a force applied tangential to said angled upper surface of said primary button by said index fingertip when stretching said index finger forward downward against said moulded contact surface. **(Column 1, Lines 63-67 disclose the apertures 44/144 are positioned over a corresponding button which can be clicked. The finger is in a bent position along 46L and 46R and when it moves to depress the buttons, the finger is further bent, at a tangential angle)**; but

Adler does not explicitly teach "said mould being tapered upwardly from said angled upper surface of said button at a height, which provides a moulded contact surface with said user's index fingertip which allows the user to move securely said mouse without actuating said primary button by a force applied generally parallel to said working surface by said index fingertip when stretching or bending said index finger against said moulded contact surface in order to effect vertical movement of a pointer on a computer screen in both up- and downward directions, said primary fingertip receptacle enabling a user to effect horizontal movement of a pointer on a computer screen without the use of hand or arm movement of the user when turning said casing around its axis in said receptacle when pushing by a thumb or a little finger of the user against a respective contact area on a respective side of said casing when operating said mouse," and that the primary button can be actuated without "actuating mouse movement."

However, Figures 1 and 16 show the apertures which allow movement of the mouse, such as the in the vertical direction since the fingers are placed into the grooves. Furthermore, these figures show the longitudinal depressions 46L and 46R/146L and 146R, which allow the finger to be

placed therein to contact the apertures 44/144 and these can also be used for movement without the use of the hand or arm and can be done just by moving the two fingers in the grooves. As for the height, the figures show the protrusion into the finger pads, obviously indicating there is a height as can be seen in Figure 1. Looking at this figure further, the fingertips, which are placed inside the apertures 44, can move the mouse in direction by applying a force, inside the groove area, and in generally a parallel direction to the surface on which the mouse is placed on.

It is at least obvious to one of ordinary skill in the art that the mouse could be moved by just placing the fingers through the apertures, providing the user with a sense of grip. These figures have the same angling structure as Applicant's as well. Regardless, one of skill would realize that movement could be actuated, or is at least, possible given Adler's structure. It is important to note that if the structure is substantially the same, then the ability to actuate the two, is obvious, if not inherent, with regards to it actually being able to be done.

Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention to actuate the mouse by positioning the fingers onto the finger pads with the motivation that Adler is seeking to design an ergonomic mouse with a good level of comfort and easy actuation of the mouse by the user.

Adler teaches in Claim 2:

The mouse of claim 1 further comprising:

a secondary button disposed transversely of said primary button at an upper front portion

of said casing so as to be actuated by a user's middle finger **(It is well known that the secondary button (right click) is actuated by the user's middle finger)** , said secondary button having an upper surface which is angled to the front end of said casing **(Figures 1 and 7 show the angled structure to the front end of the mouse. Column 1, Lines 63-67 disclose the apertures 44/144 are positioned over corresponding buttons which can be clicked. The secondary can be for the right click part, like for 46R)**;

a secondary fingertip receptacle at least partially extending upwardly from a said angled upper surface of said secondary button and forming a mould around a user's middle fingertip when placed on said angled upper surface of said secondary button slightly bent **(Figures 1 and 6 show the apertures which the finger can be placed into to depress the primary button, in the case, for the left click part. Figure 1 shows the groove for forming a mould around the fingertip a little better, such as the longitudinal depressions 46L and 46R)**,

said secondary button being actuated by a force applied tangential to said angled upper surface of said secondary button by said middle fingertip when stretching said middle finger forward downward against said moulded contact surface **(Column 1, Lines 63-67 disclose the apertures 44/144 are positioned over a corresponding button which can be clicked)**; and

a form of a rear part of said casing providing sufficient clearance between an upper surface and a rear surface of said casing, and said user's index and middle fingers being placed in the respective receptacle, and a lower palm resting on said working surface, so that said upper surface and said rear surface of said casing do not interfere with said user's index and middle the fingers when the user manipulates said mouse, said form of said rear part of said casing enabling a user to shift said mouse from a neutral position of said user's index and middle fingers by

bending said user's index and middle fingers further into a pocket formed by the user's hand, so that said mouse does not interfere with said user's palm plane and said user's lower palm resting on said working surface **(Figures 1 and 7 show the casing providing the angled shape to provide a good ergonomic fit for movement operation without interfering with the user's fingers/lower palm. Furthermore, these figures show a "pocket", the apertures which the fingers go into. Pocket is a broad term as well)**; but

Adler does not explicitly teach "said mould being tapered upwardly from said angled upper surface of said button at a height, which provides a moulded contact surface with said user's middle fingertip which allows the user to move securely said mouse without actuating said secondary button by a force applied generally parallel to said working surface by said middle fingertip when stretching or bending said middle finger against said moulded contact surface in order to effect vertical movement of a pointer on a computer screen in both up- and downward directions, said secondary fingertip receptacle enabling a user to effect horizontal movement of a pointer on a computer screen without the use of hand or arm movement of the user when turning said casing around its axis in said receptacle when pushing by a thumb or a little finger of the user against a respective contact area on a respective side of said casing when operating said mouse," and that the secondary button can be actuated without "actuating mouse movement." Furthermore, he does not explicitly teach of the casing not interfering with the lower palm of the user's hand.

However, Figures 1 and 16 show the apertures which allow movement of the mouse, such as the in the vertical direction since the fingers are placed into the grooves. Furthermore, these figures show the longitudinal depressions 46L and 46R/146L and 146R, which allow the finger to be placed therein to contact the apertures 44/144 and these can also be used for movement without the use of the hand or arm and can be done just by moving the two fingers in the grooves. As for the height, the figures show the protrusion into the finger pads, obviously indicating there is a height as can be seen in Figure 1. In addition, with regards to the heel of the user's hand not interfering with the casing, this is again something that one of skill would realize is possible and could still result in movement of the mouse.

It is at least obvious to one of ordinary skill in the art that the mouse could be moved by just placing the fingers through the apertures, providing the user with a sense of grip. These figures have the same angling structure as Applicant's as well. Regardless, one of skill would realize that movement could be actuated, or is at least, possible given Adler's structure. It is important to note that if the structure is substantially the same, then the ability to actuate the two, is obvious, if not inherent, with regards to it actually being able to be done.

Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention to actuate the mouse by positioning the fingers onto the finger pads with the motivation that Adler is seeking to design an ergonomic mouse with a good level of comfort and easy actuation of the mouse by the user.

Adler teaches in Claim 3:

The mouse of claim 2 further comprising a wheel button disposed between the primary receptacle and the secondary receptacle, said wheel button accessible by at least one of the user's finger when a user's index finger and a user's middle finger are placed in the respective receptacle of the primary and secondary buttons. **(Column 3, Lines 28-30 disclose a third actuating button or wheel may be positioned between 20L and 20R)**

Adler teaches in Claim 4:

The mouse of claim 2, wherein the primary and secondary receptacles are located on the primary button and the secondary button **(Column 1, Lines 63-67 disclose the apertures 44/144 are positioned over corresponding buttons which can be clicked. Note in Figures 1 and 6 of the groove that is formed (read as receptacle))**, respectively, so that a gap between the user's index finger and the user's middle finger being placed in the respective receptacles has a spacing distance, which allows a wheel button to be positioned between them. **(Column 3, Lines 28-30 disclose a third actuating button or wheel may be positioned between 20L and 20R)**

Adler teaches in Claim 5:

The mouse of claim 3, wherein each said receptacle has a front portion and a center of said wheel is disposed rearwardly from the front portions of said receptacles. **(Column 3, Lines 28-30 disclose a third actuating button or wheel may be positioned between 20L and 20R. The specific location of the wheel is a design choice)**

Adler teaches in Claim 6:

The mouse of claim 1, wherein said primary receptacle is formed from a moulded component comprising a pad and a rounded section, which tapers upwardly from the pad and is symmetric about a medial plane. **(Figure 6, Column 5, Lines 53-56, shows the finger pad 166 placed in the receptacle which is in a rounded shape. They are symmetrically placed on cover 10)**

Adler teaches in Claim 7:

The mouse of claim 2, wherein said secondary receptacle is formed from a ~~molded~~ moulded component comprising a pad and a rounded section, which tapers upwardly from the pad and is symmetric about a medial plane. **(Figure 6, Column 5, Lines 53-56, shows the finger pad 166 placed in the receptacle which is in a rounded shape. They are symmetrically placed on cover 10)**

Adler teaches in Claim 8:

The mouse of claim 4, wherein the user's index and middle fingertips being placed in respective receptacles are elevated from the working surface at a height, which is reduced and substantially defined by an outside diameter of said wheel. **(Figure 1 shows the receptacles at an elevated height from the working surface. Column 3, Lines 28-30 disclose a third actuating button or wheel may be positioned between 20L and 20R)**

Adler teaches in Claim 9:

The mouse of claim 1, wherein the sides of said casing each have a generally concave shape, which define a user's thumb, and a user's ring and little fingertips pinching areas. **(Column 1, Lines 53-56 disclose the concave lower portion for these fingers, for ergonomic purposes)**

Adler teaches in Claim 10:

The mouse of claim 9, wherein both sides of said casing in a user's thumb and a user's ring fingertip pinching areas are substantially vertical to the working surface over which the mouse moves. **(Figures 1 and 6 show them to substantially vertical to the working surface)**

Adler teaches in Claim 11:

The mouse of claim 9, wherein a user's side of the distal phalanx of the thumb and a user's ring and little fingertips being placed on the respective pinching areas register with the working surface over which the mouse moves when a user manipulates the mouse. **(The user may place their fingers in a variety of positions. A standard one is with some of the fingers resting on the surface to provide stability to the mouse)**

Adler teaches in Claim 12:

The mouse of claim 2, wherein a space exists between the user's palm and an upper surface of the rear part of the casing when the user shifts the mouse by stretching or bending the user's index and middle fingers placed in the respective receptacles. **(Figure 1 shows a space**

that would exist because of the angled shape of the mouse. This would exist between the palm and the rear part)

Adler teaches in Claim 13:

The mouse of claim 2, wherein a length of the rear part of the casing measured from the front edge of said primary and secondary receptacles allows a user to shift the mouse from a neutral position of the user's index and middle fingers by bending the user's index and middle fingers further in a pocket formed by the user's hand, so that the mouse does not interfere with the user's lower palm resting on said working surface **(Figures 1 and 6 show the longitudinal depressions 46L and 46R/146L and 146R, which allow the fingers to be placed therein to contact the apertures 44/144. This allows for movement without the use of the hand or arm and can be done just by moving the two fingers in the grooves. Please see the reasoning applied in Claims 1 and 2 for more details)**

Adler teaches in Claim 24:

The mouse of claim 2, wherein said primary and secondary buttons each are parts of ends of levers, which longitudinally extend from a common plate on which other ends of the levers are firmly fixed. **(The buttons are part of the casing plate and have a structure to allow them to be actuated. Furthermore, Figure 10 shows the actuating lever arm)**

Alder teaches in Claim 27:

The mouse of claim 24, wherein said casing has a cross panel in relation to said sides and said common plane of said caseing is inclined toward said front end relative to said cross panel. **(Figure 1 shows the plate with the buttons therein inclined toward the front end)**

Adler teaches in Claim 28:

The mouse of claim 1 further comprising a mouse sensing system wherein a sensor thereof is located on said bottom part rearwardly from said primary receptacle along a central longitudinal axis of said casing at a distance, which allows the user to effect horizontal cursor movement on a computer screen when turning said casing around its axis in said primary receptacle when pushing by the user's thumb or little finger against a respective contact area on a respective side of said casing. **(Figure 7 shows the mouse, Column 3, Lines 18-29 describe how the mouse is used to send signals to position the cursor by actuating the buttons)**

Adler teaches in Claim 29:

A computer mouse for a computer system, wherein said mouse has a casing with at least one button being depressed relative to said casing and disposed at an upper portion thereof to generate a signal to the computer **(Figure 7 shows the mouse, Column 3, Lines 18-29 describe how the mouse is used to send signals to position the cursor)**, characterized in that a moulded component is mounted to an angled upper surface of the button wherein said moulded component extends upwardly from said angled upper surface of said button and forms a mould around a user's fingertip when placed on said angled upper surface of said button slightly, and which provides a contact surface with a user's fingertip **(Figure 1 shows the cover 10 on top of**

the mouse to provide an angled surface as shown. Figures 1 and 6 show the apertures which the finger can be placed into to depress the primary button, in the case, for the left click part. Figure 1 shows the groove for forming a mould around the fingertip a little better, such as the longitudinal depressions 46L and 46R), which allows the user to effect vertical movement of a pointer on a computer screen in both up- and downward directions when pushing by said finger against said moulded contact surface, said button being actuated by a force applied tangential to said angled upper surface of said button by said fingertip when stretching said index finger forward downward against said moulded contact surface. **(Column 1, Lines 63-67 disclose the apertures 44/144 are positioned over a corresponding button which can be clicked. The finger is in a bent position along 46L and 46R and when it moves to depress the buttons, the finger is further bent, at a tangential angle)**; but

Adler does not explicitly teach "said mould being tapered upwardly from said angled upper surface of said button at a height, which provides a moulded contact surface with the user's index fingertip which allows the user to move securely said mouse without actuating said button by a force applied generally parallel to said working surface by said index fingertip when stretching or bending said index finger against said moulded contact surface in order to effect vertical movement of a pointer on a computer screen in both up- and downward directions, said primary fingertip receptacle enabling a user to effect horizontal movement of a pointer on a computer screen without the use of hand or arm movement of the user when turning said casing around its axis in said receptacle when pushing by a thumb or a little finger of the user against a respective contact area on a respective side of said casing when operating said mouse."

However, Figures 1 and 16 show the apertures which allow movement of the mouse, such as the in the vertical direction since the fingers are placed into the grooves. Furthermore, these figures show the longitudinal depressions 46L and 46R/146L and 146R, which allow the finger to be placed therein to contact the apertures 44/144 and these can also be used for movement without the use of the hand or arm and can be done just by moving the two fingers in the grooves. As for the height, the figures show the protrusion into the finger pads, obviously indicating there is a height as can be seen in Figure 1. Looking at this figure further, the fingertips, which are placed inside the apertures 44, can move the mouse in direction by applying a force, inside the groove area, and in generally a parallel direction to the surface on which the mouse is placed on.

It is at least obvious to one of ordinary skill in the art that the mouse could be moved by just placing the fingers through the apertures, providing the user with a sense of grip. These figures have the same angling structure as Applicant's as well. Regardless, one of skill would realize that movement could be actuated, or is at least, possible given Adler's structure. It is important to note that if the structure is substantially the same, then the ability to actuate the two, is obvious, if not inherent, with regards to it actually being able to be done.

Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention to actuate the mouse by positioning the fingers onto the finger pads with the motivation that Adler is seeking to design an ergonomic mouse with a good level of comfort and easy actuation of the

mouse by the user.

Adler teaches in Claim 30:

The mouse of claim 29, wherein there are two buttons **(Figures 1 and 6 show 46L and 46R)**, characterized in that a moulded component is mounted to an angled upper surface of each button wherein one moulded component extends upwardly from an angled upper surface of a primary button and forms a mould around a user's index fingertip when placed on said angled upper surface of said primary button slightly bent **(Figures 1 and 6 show the apertures which the finger can be placed into to depress the primary button, in the case, for the left click part. Figure 1 shows the groove for forming a mould around the fingertip a little better, such as the longitudinal depressions 46L and 46R)**, which provides a sufficient moulded contact surface with said user's index fingertip when placed on said angled upper surface of said button slightly bent and the second moulded component extends upwardly from an angled upper surface of a secondary button and forms a mould around a user's fingertip when placed on said angled upper surface of said secondary button slightly bent **(Figures 1 and 6 show the apertures which the finger can be placed into to depress the primary button, in the case, for the left click part. Figure 1 shows the groove for forming a mould around the fingertip a little better, such as the longitudinal depressions 46L and 46R)**, said buttons each being actuatable by a force applied tangential to said angled upper surface of said button by one of said fingertip when stretching said respective finger forward downward against said respective moulded contact surface. **(Column 1, Lines 63-67 disclose the apertures 44/144 are positioned over a corresponding button which can be clicked. The finger is in a bent**

position along 46L and 46R and when it moves to depress the buttons, the finger is further bent, at a tangential angle); but

Adler does not explicitly teach "said mould being tapered upwardly from said angled upper surface of said button at a height," "actuating said buttons on moulded contact surface by a force applied generally parallel to said working surface by said index or middle fingertip when stretching or bending said index or middle finger against said respective moulded contact surface," "which provides a moulded contact surface with a user's middle fingertip, said moulded contact surfaces each allowing the user to move securely said mouse without actuating said buttons each in order to effect vertical movement of a pointer on a computer screen in both up- and downward directions when pushing by said finger against one of said moulded contact surfaces, said moulded component enabling a user to effect horizontal movement of a pointer on a computer screen without the use of hand or arm movement of the user when turning said casing around its axis in said mould when pushing by user's thumb or little finger against a respective contact area on a respective side of said casing when operating said mouse," and that the button can be actuated without "actuating mouse movement."

However, Figures 1 and 16 show the apertures which allow movement of the mouse, such as the in the vertical direction since the fingers are placed into the grooves. Furthermore, these figures show the longitudinal depressions 46L and 46R/146L and 146R, which allow the finger to be placed therein to contact the apertures 44/144 and these can also be used for movement without the use of the hand or arm and can be done just by moving the two fingers in the grooves. As for

the height, the figures show the protrusion into the finger pads, obviously indicating there is a height as can be seen in Figure 1. Looking at this figure further, the fingertips, which are placed inside the apertures 44, can move the mouse in direction by applying a force, inside the groove area, and in generally a parallel direction to the surface on which the mouse is placed on.

It is at least obvious to one of ordinary skill in the art that the mouse could be moved by just placing the fingers through the apertures, providing the user with a sense of grip. These figures have the same angling structure as Applicant's as well. Regardless, one of skill would realize that movement could be actuated, or is at least, possible given Adler's structure. It is important to note that if the structure is substantially the same, then the ability to actuate the two, is obvious, if not inherent, with regards to it actually being able to be done.

Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention to actuate the mouse by positioning the fingers onto the finger pads with the motivation that Adler is seeking to design an ergonomic mouse with a good level of comfort and easy actuation of the mouse by the user.

9. **Claims 14-23** rejected under 35 U.S.C. 103(a) as being unpatentable over Adler (6,256,015 B1) in view of Smith (6,348,912 B1)

As per Claim 14:

Adler does not explicitly teach that for the mouse, "at least one additional button having a user's index finger contact area and disposed rearwardly from said primary receptacle so as to be capable of being actuated by bending the user's index finger positioned in said primary receptacle and simultaneous pinching the mouse between a user's thumb and a user's ring and/or little fingertips."

However, in the same field of endeavor, mice, Smith teaches "Provided adjacent to and behind the buttons 14, 16 are a pair of supplemental buttons 18, 20." **(Column 2, Line 9, Figure 1 shows the supplemental buttons 18 and 20)**

Therefore, it would have been obvious to a person with ordinary skill in the art at the time of the invention to integrate the use of the supplemental buttons as taught by Smith on the receptacles of Adler's mouse with the motivation that "The supplemental buttons 18, 20 are provided to allow ease of use of the mouse 10 by operators having small hands, such as children or people of slight stature." The user's fingers bend in order to actuate the supplemental buttons.

As per Claim 15:

The mouse of claim 14, wherein a contact portion of the primary receptacle and the index finger contact area of the additional button together form a contact shape that substantially conforms to the shape of the distal phalanx of the user's index finger. **(The combination of Adler and Smith teaches of placing the additional button in a reasonable range of the distal phalanx of the index finger so it can actuate in both directions)**

As per Claim 16:

The mouse of claim 15, wherein a surface of the contact portion of the primary receptacle is substantially level with a surface of the index finger contact area of the additional button at all points along a boundary between the primary receptacle and the index finger contact area of the additional button. **(The combination of Adler and Smith teaches of placing the additional button in a reasonable range of the distal phalanx of the index finger so it can actuate in both directions)**

As per Claim 17:

The mouse of claim 14, wherein an interior portion of the distal phalange of the user's index finger contacts both a front portion of said primary receptacle and a portion of the contact area of the additional button when the user's index fingertip is positioned in said primary receptacle. **(The combination of Adler and Smith teaches of placing the additional button in a reasonable range of the distal phalanx of the index finger so it can actuate in both directions)**

As per Claim 18:

The mouse of claim 14, wherein said additional button is actuated by bending the index finger and simultaneously pinching the sides of the mouse between the user's thumb and the user's ring and/or little fingertips. **(The combination of Adler and Smith teaches of placing the additional button in a reasonable range of the distal phalanx of the index finger so it**

can actuate in both directions. In order to actuate the additional button, the finger would be bent inward)

As per claim 19:

Adler does not explicitly teach that for the mouse, "a second additional button having a middle finger contact area and disposed rearwardly from said secondary receptacle so as to be capable of being actuated by bending the user's middle finger positioned in said secondary receptacle and simultaneous pinching the mouse between a user's thumb and a user's ring and/or little fingertips.

However, in the same field of endeavor, mice, Smith teaches "Provided adjacent to and behind the buttons 14, 16 are a pair of supplemental buttons 18, 20." **(Column 2, Line 9, Figure 1 shows the supplemental buttons 18 and 20)**

Therefore, it would have been obvious to a person with ordinary skill in the art at the time of the invention to integrate the use of the supplemental buttons as taught by Smith on the receptacles of Adler's mouse with the motivation that "The supplemental buttons 18, 20 are provided to allow ease of use of the mouse 10 by operators having small hands, such as children or people of slight stature." The user's fingers bend in order to actuate the supplemental buttons.

As per Claim 20:

The mouse of claim 19, wherein a contact portion of the secondary receptacle and the middle finger contact area of the second additional button together form a contact shape that

substantially conforms to the shape of the distal phalanx of the user's middle finger. **(The combination of Adler and Smith teaches of placing the additional button in a reasonable range of the distal phalanx of the index finger so it can actuate in both directions)**

Adler teaches in Claim 21:

The mouse of claim 20, wherein a surface of the contact portion of the secondary receptacle is substantially level with a surface of the middle finger contact area of the second additional button at all points along a boundary between the secondary receptacle and the middle finger contact area of the second additional button. **(The combination of Adler and Smith teaches of placing the additional button in a reasonable range of the distal phalanx of the index finger so it can actuate in both directions)**

Adler teaches in Claim 22:

The mouse of claim 19, wherein an interior portion of the distal phalange of the user's middle finger contacts both a front portion of said secondary receptacle and a portion of the contact area of the second additional button when the user's middle fingertip is positioned in said secondary receptacle. **(The combination of Adler and Smith teaches of placing the additional button in a reasonable range of the distal phalanx of the index finger so it can actuate in both directions)**

As per Claim 23:

The mouse of claim 19, wherein said second additional button is actuated by bending the middle finger and simultaneously pinching the sides of the mouse between the user's thumb and a user's ring and/or little fingertips. **(The combination of Adler and Smith teaches of placing the additional button in a reasonable range of the distal phalanx of the index finger so it can actuate in both directions. In order to actuate the additional button, the finger would be bent inward)**

Response to Arguments

10. Applicant's arguments considered, but are respectfully not persuasive.

112 rejections have been given out for the new amendments. Please see those sections for more details.

As for the art rejection, examiner notes that Applicant tried to better claim the way his structure was used. It is believed that this was done in response to examiner's arguments that the way the mouse was used was not patentable unless the structure was claimed in such a way that the Adler reference could not read on it. These two factors had to both be claimed in order to overcome the current rejection.

However, the new claim amendments have both first and second paragraph issues. Even still, it is not enough to overcome the reference. Please note Adler's apertures 44, which form "pockets" for the fingers to go into. Once there, the fingers can push against the cover to move the mouse in a direction, in a parallel motion to the surface.

Examiner is confused why Applicant decided to amend this part. While it is appreciated, examiner felt the inventive concept was the angles of the invention with respect to the areas

between 117 and 129 (Figure 1). Why then isn't this angular force being claimed better. To claim that to depress the button at a tangential angle to the surface is obvious. Examiner wants the language about the actual angled structure and more details about the tangential angles in the claims and feels that would overcome the current rejection.

Conclusions

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DENNIS P. JOSEPH whose telephone number is (571)270-1459. The examiner can normally be reached on Monday-Friday, 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on 571-272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DJ

/Amr Awad/
Supervisory Patent Examiner, Art Unit 2629